

METHOD OF FABRICATING FLUID FLOW FIELD PLATES

Abstract

A method fabricates fluid flow field plates that are suitable for use in an electrochemical fuel cell assembly. Pursuant to the method, a fluid flow field channel region such as, for example, substantially straight, parallel fluid flow field channels, is roller embossed in a sheet of compressible, electrically conductive material such as, for example, expanded graphite sheet material. A fluid distribution region such as, for example, a region containing manifold openings and supply channels, is then reciprocally embossed in the sheet material. A sheet pre-impregnated with a curable polymeric composition, such as pre-impregnated expanded graphite, can be employed, with the curing step being performed after the roller embossing and reciprocal embossing steps.